

AD-A144 055



# AIR COMMAND AND STAFF COLLEGE

## STUDENT REPORT

HISTORICAL ANALYSIS OF THE  
BATTLE OF VERDUN - 1916

MAJOR KENNETH R. PRIBYIA 84-2070  
*"insights into tomorrow"*

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**REPORT NUMBER** 84-2070

**TITLE** HISTORICAL ANALYSIS OF THE BATTLE OF VERDUN - 1916

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Submitted to the faculty in partial fulfillment of  
requirements for graduation.

AIR COMMAND AND STAFF COLLEGE  
AIR UNIVERSITY  
MAXWELL AFB, AL 36112

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM	
1. REPORT NUMBER 84-2070	2. GOVT ACCESSION NO. <i>A144055</i>	3. RECIPIENT'S CATALOG NUMBER	
4. TITLE (and Subtitle)  HISTORICAL ANALYSIS OF THE BATTLE OF VERDUN - 1916		5. TYPE OF REPORT & PERIOD COVERED	
		6. PERFORMING ORG. REPORT NUMBER	
7. AUTHOR(s)  Kenneth R. Pribyla, Major, USAF		8. CONTRACT OR GRANT NUMBER(s)	
9. PERFORMING ORGANIZATION NAME AND ADDRESS  ACSC/EDCC, Maxwell AFB AL 36112		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBER	
11. CONTROLLING OFFICE NAME AND ADDRESS  ACSC/EDCC, Maxwell AFB AL 36112		12. REPORT DATE APRIL 1984	
		13. NUMBER OF PAGES	
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office)  <del>ACSC/EDCC, Maxwell AFB AL 36112</del>		15. SECURITY CLASS. (of this report)  UNCLASSIFIED	
		15a. DECLASSIFICATION DOWNGRADING SCHEDULE	
16. DISTRIBUTION STATEMENT (of this Report)  STATEMENT "A" Approved for public release; Distribution is unlimited.			
17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)			
18. SUPPLEMENTARY NOTES			
19. KEY WORDS (Continue on reverse side if necessary and identify by block number)			
20. ABSTRACT (Continue on reverse side if necessary and identify by block number)  Presents a chronological description of the World War I Battle of Verdun in 1916 and an analysis of the current AFM 1-1 principles of war used, misused or ignored during the battle. Additionally, a chapter of guided discussion questions is provided for use in ACSC seminars studying the principles of war.			

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## PREFACE

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In February 1916, the German army attacked in the Verdun sector of the Western Front. This was the first major offensive they launched after going on the defensive in 1914, "behind a brilliantly prepared and almost impregnable line" (5:1) that ran from the Swiss frontier to the Belgium coast. What was the objective? Why the apparently well fortified position on the Front? What strategies and tactics were employed in this battle between the German attackers and French defenders and how effective were they? This project will attempt to answer these questions through an analysis of the battle in relation to the principles of war as contained in Air Force Manual 1-1. From this analysis the extracted lessons learned can be invaluable in promoting an understanding of strategy and tactics.

The project contains three distinct sections for separate use by the ACSC Warfare Simulations Branch of the Warfare Studies Division. The first section is a description of the battle. Next, is an analysis of the battle in relation to the principles of war used, misused, or ignored by the opposing forces. Finally, the third section provides guided discussion questions for use in seminars. The appendix contains map displays for geographical reference and orientation.

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## CHAPTER ONE

### THE BATTLE

The Western Front at years' end in 1915 was continuous from the Swiss frontier to the Belgium coast, winding through France to within 50 miles of Paris at Soissons. In February 1916, the German Army attacked in the Verdun sector of this front. This was ~~the~~ the first major offensive they launched in the West after going on the defensive in 1914. What was their objective? Why attack an apparently well fortified position that had been the intended pivot point of Germany's revolving door plan designed by Count Graf Von Schlieffin? This chapter will chronologically describe the actions of the opposing forces which became entangled in this ten-month long battle.

The German General Staff, headed by General Erich Von Falkenhayn, wanting to press the small advantage they currently had in resources, looked to Verdun as a location for knocking the French out of the war. General Falkenhayn felt the allies, increasing in men and materials, would soon overcome what Germany could continue to produce. He proposed an attack with limited resources on an objective behind the French sector of the front:

For which the French General Staff would be compelled to throw in every man they have. If they do so the



forces of France will bleed to death - as there can be no question of a voluntary withdrawal - whether we reach our goal or not (2:249).

The task of the limited offensive was given to the Fifth Army, under the command of Crown Prince William. The Fifth was composed of four corps on the line and one in reserve (9 divisions). Opposite the Germans, this French sector around Verdun was defended by two divisions of the Thirtieth Corps under the command of General Herr (9:53).

The Verdun salient was divided into three distinct areas from the northwest to the east. In the northwest sector, rolling, sparsely covered terrain ran from the Argonne Forest to the left bank of the Meuse River. The area of the right bank of the Meuse sloped up rapidly to the Meuse Heights in the north. In the east, the low-lying Plain of Woevre ran to the eastern portion of the heights before Verdun and due to a wet winter and early spring was reduced to a swamp, unappealing for an offensive. Therefore, the German planners felt their major thrust should be toward taking the Meuse Heights, for once in command of the high ground, they could then move to cut off the defenders on the left bank and secure the primary approach to the city (2:256). The plan called for an opening bombardment along the total 40 kilometer front and an infantry drive on the Orne-Meuse sector (8:277).

From January until the attack, Germany carried out a secure massing of artillery and manpower in the selected area of the front. Their excellent rail system moved in an additional nine

specially trained and thoroughly rested divisions. A force of six and one-half divisions would initiate the assault "so that each division had less than two kilometers of front to attack" (2:263). Additional artillery, including 420mm "Big Berthas", 380mm naval guns, and 77mm field guns insured that:

The area of attack would receive the attention of 306 field pieces and 542 heavies, supported by some 152 powerful mine throwers. Additional artillery massed on the flanks brought the grand total to over 1,220; and all for an assault frontage of barely eight miles (5:42).

This massing of troops and material went on almost totally undetected by the French. The Germans used the concealment of the forest and underground shelters, called stollens, to keep their troops and stockpiles invisible to the enemy (3:216). Meanwhile, the one French corps standing in defense of Verdun had to deal with the higher commands' desires to remove artillery batteries from surrounding forts which had been declassified in the offensive fervor of the French high command (4:117). General Joffre and the British Expeditionary Force Commander, General Haig, were planning for a summer offensive by the Allies on the Somme River. There was little consideration given to a massive German assault and then especially not at Verdun (7:437).

The Germans planned to commence the offensive on 12 February; however, rain, snow, high winds and then mist and clouds covered the entire sector for the next ten days. This delay permitted the French to realize something was about to happen, but they managed only minor enhancements to a few secondary trenches. Thus, the

opening artillery barrage at 7 A.M. on 21 February was a surprise. The German plan called for such a massive bombardment that the infantry would only have to march in and occupy the area (6:129).

The well-orchestrated barrage stretched from the French front trenches, through the secondary casements and into the heart of the city itself. At 1500 hours a violent short bombardment was directed to the narrow attack front (8:277). At 1600 hours the artillery was lifted only from this front. Then, a thin line of skirmishers, followed by bombing parties and flame thrower detachments, infiltrated under cover of ravines and forest to feel out the French position before the mass of infantry would be committed (3:220).

French casualties from the barrage were high, but not as high as the Germans had estimated (10:180). Only one German corps, the VII Reserve, made any headway. Ignoring the command to only test the line, General Von Zwehl sent in the first wave of his storm-troops close on the heels of his patrols and managed to seize the whole of the Haumont Forest in five hours. The other units stuck to the slow feeling-out process allowing the limited fire from the French positions to hold them up. By the time the 5th Army HQ realized Von Zewhl's success, it was too late in the day to press the issue elsewhere (5:82).

Next day, the French initiated random, uncoordinated counter-attacks. In the end, they were futile running into the new bombardment and onrush of the full German infantry and "the defenders line was crumbled like sand before the erosion of the tide" (4:118).

By the evening of the 25th, the German front was five miles

closer to the city and the French, though valiant in their counter attack, were definitely on the verge of giving way (5:142). At this point two key events took place. First, General Joffre sent General Henri Pétain and the 2nd Army to take over the defense of Verdun (7:446). Pétain took command and personally organized the French artillery, composed primarily of 75mm field guns and some older 155mm pieces. Until now, the French artillery response had been mostly a nuisance and, on occasion, a detriment when their shells would land in the midst of the disorganized small unit counter attacks launched by their own infantry (5:99). A major factor in the artillery duel was the overwhelming German superiority in observation and attack aircraft which gave the German guns good direction while denying the same to the French (5:203). Pétain set about coordinating artillery with infantry, holding his units back from wasteful, random counter-attacks; however, he had to contend with Joffre's insistence on regaining lost ground immediately (9:90).

Secondly, the Germans, with an advantage, were unable to push forward. Rain, late on the 25th, hampered their movement, especially the artillery which could not advance fast enough to keep pace with the infantry in the soggy, wet terrain (10:183). The primary factor, however, was the lack of reserves. The Crown Prince had one fresh regiment in reserve on the 25th so that just as the French were weakening the Germans could not continue. Falkenhayn was delaying the requested reserves and reinforcements until "the bulk of the French Army had been lured into his trap" (5:153).

The French psychological concern for the Verdun fortress area looms large at this point. Falkenhayn read them correctly when he said they would defend the area to the last man. Pétain had strict orders not to give an inch including retreating to the left bank (7:447). The only area that had been ceded was the Woivre Plain in order to use the troops elsewhere at Verdun and not to get them caught in a flanking move from the Heights (8:279). Otherwise, the French would pour in whatever Pétain needed to insure the survival of Verdun. In the midst of the change in command, the Germans captured Fort Douaumont. Although the fort, like many of the others ringing the citadel of Verdun, was not heavily fortified or manned, since preferred French tactics were of the maneuvering type, the moral implications of the loss of a "symbol" impacted the French populace (5:122). Its impact on the French leadership was crucial also as Pétain explains:

The loss of our advanced position to a depth of five or six kilometers represented nothing more serious than a normal setback...only, the capture by the Germans of Fort Douaumont, the highest point on the battlefield, and the key position, would necessarily involve the defenders in consequences of considerable gravity, from both practical and moral points of view. (9:83)

Another grave concern for Pétain was the line of communication to the rest of France. There was only one remaining: "a narrow gauge track,...designed to supply the wants of a peacetime garrison, and the second class road that ran alongside it for some fifty miles from Bar-le-Duc" (5:146). Pétain and his transportation engineer, Major Richard, organized the use of the road to allow maximum use.

Prior to the German attack, the French forces could only raise 700 trucks with a daily capacity of 1,150 tons. Major Richard and his troops managed to gather 3,500 assorted vehicles by the time Pétain took over. To keep the road useable, all available Territorials (those men above age 35, considered too old for active combat duty, assigned to local militias and other rear area duties) were called up and lined along the road to continuously throw gravel on it (5:147). This one line of supply and communication came to be known as the "Sacred Way" and from 27 February to 6 March the units under Major Richard carried "twenty-three thousand tons of munitions, two thousand five hundred tons of material, and one hundred and ninety-thousand men" (9:99).

Pétain sent the early French reinforcements to Left Bank positions in anticipation of a German advance which he felt had to come (9:91). His excellent knowledge of defensive tactics, many times at odds with the overwhelming French attitude of attack, led to increased fortification of the Left Bank and allowed the artillery to provide flanking fire on the German advance on the Right Bank inflicting heavy casualties (10:184).

At this point, the German 5th Army attempted to convince Falkenhayn of the necessity of reinforcements once again. This time, in light of a planned offensive on the Left Bank and a coinciding attack on the Right Bank to capture Fort Vaux (this one had been armed by Pétain and its fire was slowing the German left flank), Falkenhayn acquiesced and gave them the new VI Reserve

Corps (5:155).

The German's primary objective on the Left Bank was "le Mort Homme", a "long, bare barrow (mound) running at right angles to the river, and topped with twin hillocks" (5:156). Its position gave a clear field of vision in every direction. The French had a heavy concentration of artillery behind it and the Germans wanted it, for it cleared the way to the next ridge behind which lay Verdun.

On 6 March, the German offensive on both banks began after a barrage similar to that of 22 February (9:102). The attack on the ~~Left~~ Left Bank involved a pincer move using the 77th Brigade of the VII Reserve from the Right Bank crossing the Meuse and joining with General Kiemann's 22nd Reserve Division coming down from the original front line (10:187). The Germans moved rapidly to capture the Corbeaux Woods, the only cover in the area of the Mort Homme. After three days of spirited fighting in which the Corbeaux Woods changed hands twice, the Germans, on 10 March, secured the wooded area. However, losses were so great they were unable to continue the advance (5:159). The Right Bank thrust had been delayed two days due to continuing problems with moving artillery and ammunition. The delay lost the advantage and the attack could not carry the village near Fort Vaux (10:188).

For the next two months, the front did not change measurably. The attacks and counterattacks went on endlessly all along the line on both sides of the Meuse. Casualties by 1 April were approximately

89,000 French and 82,000 Germans (5:229). One particular bloody attack came on 9 April when the Germans opened an assault on the entire front. For the attack, "the Germans had expended seventeen trainloads of ammunition and many thousand more men. One of the... divisions alone left 2,200 men on the...slopes of the Mort Homme" (5:166). The "battle of attrition", devised by the Germans, was bearing full fruit. And, by the number of troops massed there, each army gave every indication they intended to continue. By mid-April the French had three corps in the western sector (Left Bank) and two corps in the eastern sector (Right Bank). All total, the **Second Army, now responsible for Verdun, had in effectives: 13,600 officers and 525,000 men in seven army corps (9:117 & 133).** This total included reserves and auxiliary services, not all, of course, in the front lines. General Jétain had established a system of cycling entire divisions through the battle. This millwheel rotation, called the "Roria", had the positive effect of removing units before they were totally annihilated or simply worn out and by 1 May, would turn 40 divisions through the Verdun sector (5:228).

The Germans, showing their resolve, had six full corps and parts of two more for a total fighting strength of about 20 divisions. However, they did not use rotations, only replacing losses from rear area units. They had withdrawn no more than seven to eight divisions since 21 February. By 1 May, twenty-six divisions would see action at Verdun (9:137).

As the front settled into seesaw battles of no more than a



thousand yards at a time, the French High Command, General Joffre in particular, became anxious to mount a large scale counter-offensive to drive the Germans back (7:449). Pétain argued that such a move could only come in conjunction with or after another major offensive by the Allies somewhere else on the Front (9:118). The French and English were planning such a move on the Somme River, but it could not begin before August according to General Haig. Joffre felt Pétain was becoming too defense-minded and narrow-focused and found a way to remove him from the area (7:451). He promoted Pétain to Commander of Central Armies Group at Bar-le-Duc where he would oversee the operation of three more armies in addition to the Second. The orders, issued by Joffre on 28 April, read:

General Pétain is under specific instructions to see that all positions along the whole front held by the Central Army Group are safe, and as far as the Verdun front is concerned, he is to capture Fort Douaumont (9:132).

Further, Joffre informed him there would be no more cycling of divisions from outside the Central Armies Group and that he was to attempt to reduce from the twenty-four divisions presently there (7:450).

Taking Pétain's place at Verdun was General Nivelle, an officer more in tune with the French offensive spirit and one who "believed that victory was purely a matter of moral force" (5:230). He immediately began a series of counter-offensives on the Right Bank in hopes of taking Fort Douaumont. However, these attacks

encountered heavy German artillery and managed only to further deplete his manpower (5:238-240). During this time both forces' artillery were the prime players making it difficult for either infantry to accomplish much. Along with the organization Pétain provided the French artillery, the airbattle had tipped to the French allowing better observation, thus more direct and accurate firing. (5:206).

At the Fifth Army HQ, the Germans became embroiled in a bit of intrigue when the Crown Prince and his staff felt the offensive should cease (10:200). The Chief of Staff, General Von Knobelsdorf, was sent to General Falkenhayn to argue the point. However, once there, he convinced the Chief of the German General Staff that the offensive should continue. Falkenhayn agreed and the order was given on 2 April (10:207). Thus, the attrition continued with the Germans finally gaining the Mort Homme and Hill 304 on the Left Bank by mid-May and Fort Vaux on the Right Bank on 7 June (10:214). These feats were accomplished simply by overwhelming bombardment and massive, and costly, frontal assaults. The taking of Fort Vaux alone took seven days and only when the water ran out did the defenders surrender. Four German battalions were directly involved and lost 2,678 men and 64 officers. French killed were 20 with 100 casualties and an additional 500 captured (5:264).

Once again, the French moral significance attached to the forts created a more dangerous situation than the actual loss of ground. General Nivelle sent relief actions toward the fort for

six straight days. The last one a full day after Fort Vaux's surrender. This column ran headlong into a German force moving out of the fort toward the next objective, Fort Tavannes. In the ensuing confusion, both infantries were annihilated by the artillery from each side (5:265-266).

After the fall of Fort Vaux, the Germans were able to move forward each time they repulsed the futile French counter attacks and on 11 June moved on Thiaumont (10:216). Two regiments of the French 52nd Division, the 291st and 347th, came under a murderous barrage, literally burying the men in their makeshift trenches. The German infantry moved on the positions while the French survivors were digging themselves out. The 291st was captured outright, but the 347th put up a stiff response. However, one company commander, seeing his company about to be encircled, ordered a withdrawal. Panic broke out and a chain-reaction resulted with the remaining troops of the regiment breaking for the rear. This loss of two regiments left a gaping hole in the line (5:271). Once again, the Germans were unable to take the advantage since there were no effective reserves to make the push (10:217)

The French salvation in this case was the Brusilov Offensive against the Austro-Hungarian Army on the Eastern Front (5:282). Falkenhayn had to send three divisions from the Western Front to help on 8 June and then on 12 June advised the Crown Prince to cease the offensive for the time being on the Verdun sector (2:286).

On 23 June, the Germans began another offensive to take Froi-deterre, Fleury village, and Fort Souville, just over two miles

northeast of Verdun (10:217). The point of attack was to be on a narrow front of approximately three miles with three divisions.

~~Artillery~~ Artillery softening began on 21 June and continued into the night of the 22nd. At this point all batteries switched to a new gas shell called "Green Cross Gas" or phosgene. It was a deadly gas to any living thing and the French gas masks were only partially effective (5:286). The gas shells were used until dawn when the batteries switched back to high explosives for the next three hours. The majority of the gas shelling was directed toward the French artillery and was very effective. For the first time since 21 February one set of gunners had a clear superiority over the other (5:287).

The infantry moved in at 5 A.M. on the 23rd and made good progress at first. However, once again there weren't adequate reserves to push the advantage and the shock at the center was swept by formidable machine gun fire (10:218). Also, the French artillery was able to regroup in the time period after the gas attack, during the high explosive artillery barrage. Thus, the French guns, crews replaced, rained down on the Germans and helped in stopping their advance short of Fort Souville (5:291). However, the Germans did take the approach to Froideterre, overran Fleury village, were dangerously close to Fort Souville and now settled to repulse the French counterattacks. The Crown Prince wrote of the situation of 23 June. "Our use of gas shell had prepared our way to victory; and it seemed that we had now a good chance of a decisive victory" (10:219). While the 5th Army Commander appeared to have visions of taking Verdun, it is interesting to read General Falkenhayn's words on

the same occasion:

...It was resolved to proceed during the next few weeks with the preparation of our attack on the works in the inner line of defenses...We had thus good prospects of securing enveloping positions the possession of which would make the citadel and its neighborhood a hell for the French, and also materially reduce the German casualties (2:273).

Since the German command structure was so centralized, the disparity in objective of Falkenhayn and his field commander can only mean that the Crown Prince was never fully aware of his commanders intentions.

Meanwhile, General Pétain, at Bar-le-Duc, managed to convince Joffre and Haig of the urgency of the situation and they determined the Somme offensive could be ready by 29 June (9:181). In addition, the artillery barrage there would begin as soon as possible. They managed to begin on 24 June (7:470). The Somme Offensive actually began on 1 July and had the desired effect as Falkenhayn began diverting troops to that sector immediately (3:223). The Crown Prince's army was:

To place two divisions at the disposal of the High Command and to report what further reserves we could provide by the adoption of the strictest economy of force in the front lines (10:220-221)

while maintaining the offensive. However, his units spent the next days warding off the repeated counter attacks of the French. On 11 July, the Crown Prince launched an assault of four divisions on the Souville area with some of his units reaching Port Souville

before being beaten back. That evening, General Falkenhayn ordered the Crown Prince to cease the offensive and adopt a defensive posture (10:223). As of 25 July, the total losses for each side were: French - 275,000 (65-75,000 killed); Germans - approx.

250,000. Seventy of France's 96 divisions and 46<sup>1</sup>/<sub>2</sub> German divisions had served at Verdun (5:300). Small, violent skirmishes continued for the next three months with little or no change in position.

During August, the German command debated how best to remain on the defensive in the Verdun sector while still giving the impression to the enemy that the offensive would continue (2:305).

The Crown Prince and his two group commanders (one for each bank of the Meuse) felt their position would be untenable in the coming fall and winter. Knobelsdorf wanted to push on for at least a gain in the heights to include Fort Souville and Berg Wood, which, though costly, would be easier to defend and resupply in winter. He also appeared to continue to be caught up in the idea that the French should be "bled white" (10:233). General Falkenhayn, seeming to have lost interest in the battle there, turned the decision over to the Crown Prince and his staff. On 23 August, the Crown Prince replaced his Chief of Staff with General Von Luttwitz, a man "who entered into my ideas rapidly and without reservations, especially as regards the question of the cessation of the offensive" (10:235).

On 28 August, Rumania and Italy entered the war against Germany and Austria. Falkenhayn resigned on 29 August and Field Marshal von Hindenburg was named Chief of the General Staff of the

Field Armies and General Ludendorff accompanied him as First Quarter-Master General (2:324). They began reorganizing the army groups and shoring up the defensive positions. They formed the western armies into two groups giving Crown Prince William command of the group of armies from Champagne to the Swiss frontier. Further, they reformed all divisions to consist of only three regiments (10:238).

The French, meanwhile, continued throughout September and into October with small offensives over the whole Verdun sector keeping the Germans engaged in an attempt to deter them from transferring more troops to the Somme (9:195). The Germans attempted during this time to secure their defensive positions, their units having been depleted by movements to other fronts. The 5th Army, with nine divisions on either side of the Meuse and three in reserve (one on the left bank and two on the right) began to suffer due to the loss of artillery and aircraft - heavy batteries dropped from 140 to under 70 - and the constant attacks of the French. Of the 21 divisions remaining there, only one was considered relatively fresh having traveled from the Somme and refitting and resting on the way (10:243-245).

Generals Pétain and Nivelle planned to launch a major offensive in mid-October to retake Forts Douaumont and Vaux. They earmarked seven divisions for the task - three attacking, three in reserve and one for emergencies - and put them through special maneuvers in the rear (9:201). The advance would use Nivelle's "creeping barrage" where the infantry would move at a prescribed pace of "100 yards

in four minutes; seventy yards behind the field gun barrage; and 150 yards behind that of the heaviest guns" putting the infantry on top of the enemy while he was digging out (5:309). General Mangin, Nivelle's alterego, was given command of this attack, and 300 field guns and 300 heavy artillery pieces, including two 400 millimeter railway guns, were made available to him (9:198).

The barrage began on 19 October and due to excellent coordination between the artillery and its airborne observers began annihilating the German front positions (5:311). The German guns, badly worn and depleted in massive transfers to the Somme, did not respond (10:249-250). Bad weather delayed the attack but the artillery barrage continued (7:493). On the 22nd, the French guns stopped in the afternoon and the Germans heard cheering coming from the French assault trenches. The German artillery opened fire, just as General Nivelle wanted them to, and were immediately pinpointed by observation balloons and aircraft. The French guns then reopened fire with an especially violent barrage on the German gun positions (5:313-314).

The barrage continued and on the morning of the 24th, even though a thick fog covered the entire battlefield, the French infantry advanced under the creeping barrage into the German front trenches, totally surprising the survivors (5:318). The German lines, at the attack point, gave so much ground that a total of seven divisions had to fall back to keep from being rolled up (10:250). Fort Douaumont was so badly damaged by a number of rounds from the 400mm guns that the Germans evacuated before the French arrived in



the afternoon (9:202).

After this French advance of "three kilometers over glutinous clay and the most shell-pocked ground ever known..." (5:317), the Germans began acceding ground and evacuated Fort Vaux on 1 November. The French retook it on 2 November and launched a similar offensive on 15 December, pushing the line two miles past Fort Douaumont to enhance the defenses around the forts (9:207). The Germans lost heavily in this last encounter - total of 25,000 men; 12,000 captured of which 300 were officers; 115 field guns, 44 trench mortars, and over 100 machine guns were either captured or destroyed (7:495).

The Battle of Verdun in 1916 had finally ended and even today there is disagreement as to the total casualties inflicted. The consensus of researchers and historians puts the figures at 337,000 German losses to 377,231 Frenchmen, of which 162,308 were killed or missing (5:327). This, of course, was not the last activity the Verdun area would witness but it probably was the worst. Later, in August 1917 most of the remaining lost ground was retaken. Then, in September 1918, the French and American forces completed the reoccupation of all lost ground three days before the Armistice.

## CHAPTER TWO

### PRINCIPLES AND ANALYSIS

In this chapter each Principle of War as defined in Air Force Manual 1-1 will be reproduced. These descriptions will, in each case, be extracted directly from AFM 1-1. Examples of positive or negative applications during the Battle of Verdun, 1916, follow each principle.

Principles of war have taken many forms and have been treated differently by various military communities. Some military scholars and philosophers would urge that the principles of war should be abandoned, while others would enshrine the principles of war as a roadmap to success in warfare. Neither view is entirely appropriate. The first view would ignore the educational and guiding influence of the principles of war, while the second view would tend to abuse the principles of war as some sort of recipe that supplants initiative and improvisation. All of the principles of war are interrelated and interacting elements of warfare. They are not separate and distinct elements of warfare. They are not separate and distinct entities from which a commander selectively chooses and applies to employing forces. Put in perspective, the principles of war help provide a better understanding of warfare, but they are not a series of checklist items that necessarily lead to victory. The principles of war are an important element of the art and science of warfare, but the understanding and mastery of this art requires a depth of knowledge far beyond mere principles (11:2-4).

It is hoped that, by comparing principles designed for use today with operations undertaken during World War I, these principles will be reaffirmed in their validity during that historical confrontation.

## OBJECTIVE

The most basic principle for success in any military operation is a clear and concise statement of a realistic objective. The objective defines what the military action intends to accomplish and normally describes the nature and scope of an operation. An objective may vary from the overall objective of a broad military operation to the detailed objective of a specific attack. The ultimate military objective of war is to neutralize or destroy the enemy's forces and his will to fight. However, the intimate bond which ties war to politics cannot be ignored. War is a means to achieving a political objective and must never be considered apart from the political end. Consequently, political imperatives shape and define military objectives. It follows that the objective of each military operation must contribute to the overall political objective (11:2-4).

## GERMAN

The German attack on the Verdun sector of the Western Front indicates both positive and negative applications of this principle. General Falkenhayn believed France had to be attacked and, because of limited German resources, on a narrow sector of the Western Front holding a prize which France would defend to the last man (2:239-250). The Verdun salient met this criteria.

While Falkenhayn argued that his objective of knocking France out of the war could be achieved whether or not the Germans obtained a breakthrough, he appears to have let the commander in the field, Crown Prince William, enter the engagement believing his objective was to deliver a decisive blow and capture Verdun (10:167). This disconnect led to different battlefield tactics than Falkenhayn had envisioned. Instead of drawing French manpower into the artillery "mincing machine" (4:116), the frontal assault tactics used

by the Germans made the battle far less than a strategically economical one. By the end of the ten month battle, the French had lost over 375,000 compared to a German loss of roughly 337,000 (5:327).

#### REACTION

Reaction by the French to the attack on Verdun was exactly as Falkenhayn had predicted. Joffre immediately ordered the defenders to hold and promised court-martial for any officer retreating (7:447). In addition, the defenders were to make every effort to retake lost ground as soon as was possible and was borne out by the last two offensives carried out by Pétain and Nivelle with the express objective to regain Ports Douaumont and Vaux (9:198)-symbols of that lost ground.

While the objective here was plain, the French seem to have misapprehended the reality of the situation. Joffre and Haig were planning a major offensive on the Somme and could ill afford to lessen the strength of the forces in that sector (7:455). However, with such a stringent objective, requiring offensive strength, at Verdun, Joffre allowed Falkenhayn to deter him from his larger objective. Perhaps, a much more defensive posture at Verdun would have cost him less in manpower and he then would be able to place more nearly the divisions required at the Somme rather than only a fraction of the force planned (5:293).

#### OFFENSIVE

When offensive action is initiated, military victory is seldom possible. The principle of offensive is to

act rather than react. The offensive enables the commanders to select priorities of attack, as well as the time, place and weaponry necessary to achieve objectives. Aerospace forces possess a capability to seize the offensive and can be employed rapidly and directly against enemy targets. Aerospace forces have the power to penetrate to the heart of an enemy's strength without first defeating defending forces in detail. Therefore, to take full advantage of capabilities of aerospace power, it is imperative that air commanders seize the offensive at the very outset of hostilities (11:2-5)

#### GERMAN

This principle was the underlying theme of the German objective at Verdun. The intention of acting before the Allies mounted their summer offensive was to draw them into a battle and divert their attention and manpower. Falkenhayn's limited objective strategy and his holding back of reserves and reinforcements at critical points forced the 5th Army to continually adopt a defensive mode to refit and rest (10:183,186,193-195). This created a convoluted version of the General's plan to trap the French army into a battle of attrition. He still held the offensive since, until July, the Germans were acting and the French reacting.

The diversion and cessation of the offensive came about on the opening of the Allied attack on the Somme. To a degree, Falkenhayn's offensive at Verdun impaired the French effort on the Somme since Joffre was only able to provide 14 of the planned 40 divisions to that battle (5:293). In this regard, Falkenhayn used the principle of the offensive.

#### FRENCH

The French army from top to bottom was heavily indoctrinated with a kind of dogma that only the offensive should concern them and that "every soldier must ardently desire the assault by bayonet as the supreme means of imposing his will upon the enemy and gaining victory" (5:12). This élan and "attack always" attitude can be found in orders issued throughout the war as in the case at Verdun in the initial days when Joffre tasked the defenders to hold their positions and go on the offensive as quickly as possible (7:447).

This narrow focus on the principle of offensive, ignoring all else, cost the French dearly since they played into Falkenhayn's trap and were only reacting to German attacks. The numerous uncoordinated assaults mounted at Verdun each time ground was lost only resulted in greater losses in manpower. It was this attitude which caused the first months of battle to be far more costly to the defenders than the German attacking forces.

Once the German offensive halted, the French showed they could use the offensive and quite well. The well-prepared, coordinated attacks carried out in October and December, although against a worn-down, depleted force, are good examples of the principle of offensive.

#### SURPRISE

Surprise is the attack of an enemy at a time, place, and manner for which the enemy is neither prepared nor expecting an attack. The principle of surprise is achieved when an enemy is unable to react effectively to an attack. Surprise is achieved through security, deception, audacity, originality, and timely execution. Surprise can decisively shift the balance of power. Surprise gives attacking

forces the advantage of seizing the initiative while forcing the enemy to react. When other factors influencing the conduct of war are unfavorable, surprise may be the key element in achieving the objective. The execution of surprise attacks can often reverse the military situation, generate opportunities for air and surface forces to seize the offensive, and disrupt the cohesion and fighting effectiveness of enemy forces. Surprise is a most powerful influence in aerospace operations, and commanders must make every effort to attain it. Surprise requires a commander to have adequate command, control, and communications to direct his forces, accurate intelligence information to exploit weaknesses, effective deception to divert enemy attention, and sufficient security to deny an enemy sufficient warning and reaction to a surprise attack (11:2-5).

#### GERMAN

The German 5th Army preparations for the attack paid close attention to the need for surprise. They managed to mass the additional nine divisions and large quantities of artillery, ammunition and supplies without French knowledge (10:170-172). The French Command, believing action at Verdun would only be a small part of a much larger push in other sectors, failed to insure the defense at Verdun was ready and in fact ignored intelligence reports to the contrary (7:437-443;3:117). Only the bad weather, which began on 12 February, caused the German attack to be less surprising. It was during this period that Joffre sent staff members to survey the defenses, improved some secondary defenses, and ordered reinforcements (two divisions) into the area (8:275).

The German artillery was used in a fashion designed to enhance surprise. Until now, the war had seen major offensives that were basically announced by long periods, several days or even weeks,

of artillery softening. At Verdun, each advance was to be covered by an intense bombardment, "brief...making up for its short duration by the number of batteries and the rapidity of their fire" (4:116).

#### FRENCH

Since the French defenders spent the first four to five months of the battle reacting to German attacks, they had few occasions where they managed to develop the principle of surprise. Probably the most important developement was the security which Pétain afforded the sector by developing the Sacred Way, the system of resupplying the Verdun forces using the road and rail line from Bar-le-Duc. The immense amount of men and material brought forward would have to be considered surprising and while it appears to have played into the design envisioned by Falkenhayn, it caught The Crown Prince and his troops by surprise in that the defenses were so speedily enhanced.

The tactics used initially by the German forces were not lost on the French. In their two offensives in October and December, the artillery softening was intense and short, the troops used infiltration techniques and these were enhanced with Nivelle's "creeping barrage" tactics of moving the infantry immediately behind the falling bombardment. These tactics had the desired effect of surprise and were carried out well.



## SECURITY

Security protects friendly military operations from enemy activities which could hamper or defeat aerospace forces. Security is taking continuous, positive measures to prevent surprise and preserve freedom of action. Security involves active and passive defensive measures and the denial of useful information to an enemy. To deny an enemy knowledge of friendly capabilities and actions requires a concerted effort in both peace and war. Security protects friendly forces from an effective enemy attack through defensive operations and by masking the location, strength, and intentions of friendly forces. In conducting these actions, air commanders at all levels are ultimately responsible for the security of their forces. Security in aerospace operations is achieved through a combination of factors such as secrecy, disguise, operational security, deception, dispersal, maneuver, timing, posturing and the defense and hardening of forces. Security is enhanced by establishing an effective command, control, communications, and intelligence network. Intelligence efforts minimize the potential for enemy actions to achieve surprise or maintain an initiative, and effective command, control, and communications permit friendly forces to exploit enemy weaknesses and respond to enemy actions (11:2-5).

## GERMAN

Again, the initial massing of troops and equipment carried out by the Germans prior to the attack must be mentioned. Every troop shelter, gun emplacement and line of communication established was done so with the idea of maintaining security (10:170). This task was made more difficult because of French observation aircraft and the knowledge that any trench enhancements or gun placements would be noticed (10:171). However, because of their attention to this principle, the Germans were able to begin the attack, even though ten days later than planned, without the French being aware of the magnitude of forces massed there.

## FRENCH

The state of the defense in the Verdun salient indicates the French ignored this principle. In their desire to operate in the offensive and maneuver style of warfare, the forts surrounding Verdun were declassified and basically stripped of all artillery and field guns (4:117). The commander of the defenses there, General Herr, repeatedly reported that his one corps, without the forts and any substantial secondary defense lines, could not possibly hold if the enemy launched an attack (5:54-55).

While the French managed to develop their security for most of the remaining time, another episode points out further ignorance of this principle. After Nivelle took command of the 2nd Army in May, his desires to seize the initiative and move to the offensive overshadowed all other concerns with especially disastrous results in the area of security. A specific instance was Nivelle's and General Mangin's attempt in late May to retake Fort Douaumont. Their communications, notes by runner and phone, regarding the effort were all done in the clear without any attempt at secrecy. The Germans knew 48 hours before the attack of the entire plan and were waiting (5:236-241).

## MASS AND ECONOMY OF FORCE

Success in achieving objectives with aerospace power requires a proper balance between the principles of mass and economy of force. Concentrated firepower can overwhelm enemy defenses and secure an objective at the right time and place. Because of their characteristics and capabilities, aerospace forces possess

the ability to concentrate enormous decisive striking power upon selected targets when and where it is needed most. The impact of these attacks can break the enemy's defenses, disrupt his plan of attack, destroy the cohesion of his forces, produce the psychological shock that may thwart a critical enemy thrust, or create an opportunity for friendly forces to seize the offensive.

Concurrently, using economy of force permits a commander to execute attacks with appropriate mass at the critical time and place without wasting resources on secondary objectives. War will always involve the determination of priorities. The difficulty in determining these priorities is directly proportional to the capabilities and actions of the enemy and the combat environment. Commanders at all levels must determine and continually refine priorities among competing demands for limited aerospace assets. This requires a balance between mass and economy of force, but the paramount consideration for commanders must always be the objective. Expanding excessive efforts on secondary objectives would tend to dissipate the strength of aerospace forces and possibly render them incapable of achieving the primary objective. Economy of force helps to preserve the strength of aerospace forces and retain the capability to employ decisive firepower when and where it is needed most (11:2-6).

#### GERMAN

The operation of the German attack on Verdun was planned to have a balance of these two principles. Primarily based on overwhelming firepower - mass - and limited manpower - economy of force (3:216), the plan relied on, what turned out to be, a false belief that the advanced technology of artillery would obliterate the enemy, requiring only that the infantry move in and occupy the devastated positions. Although the basic force of German manpower was superior to the defender's numbers, the German Command seems to have lightly regarded the necessity of reserves.

Due to the disparity of objective between high and field

commanders, it is difficult to state matter-of-factly that the Germans erred in their use of these principles. If Falkenhayn, in his post-war memoirs, was simply covering his true objective of breaking through as is believed by some historians (3:215), then he ignored the principle of mass while leaning too heavy on economy of force in manpower. However, if, as he has purported, he truly desired to simply draw the French into a mincing-machine, then his initial force was more in balance. Of course, the question then turns back to objective and offensive and his failure to insure simplicity allowing his subordinates understanding of and concurrence with his plan.

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#### FRENCH

Initially, the French ignored these two principles, simply mounting counter-attack after counter-attack. If the counter-attacks were to be successful, they would have had to employ the principle of mass. Throwing their forces, later only equal in number to the Germans, constantly against the enemy in frontal assaults was extremely wasteful and definitely prolonged the battle in that they were unable to mass large forces by not husbanding the lives of the troops they had.

Pétain attempted to slow the constant counter thrusts and at least managed to coordinate most of them with other sectors and the artillery. His operations in the March through June time period at least tried to balance the two principles. Through his supply lines he was able to bring mass to the French side. His cycling system of rotating complete units in and out of the front showed a desire

for conserving his manpower. Yet, Joffre's orders were plain and even he had to continue to hold his ground and attempt to retake any that was lost.

### MANEUVER

War is a complex interaction of moves and countermoves. Maneuver is the movement of friendly forces in relation to enemy forces. Commanders seek to maneuver their strengths selectively against an enemy's weakness while avoiding engagements with forces of superior strength. Effective use of maneuver can maintain the initiative, dictate the terms of engagement, retain security, and position forces at the right time and place to execute surprise attacks. Maneuver permits rapid massing of combat power and effective disengagement of forces. While maneuver is essential, it is not without risk. Moving large forces may lead to loss of cohesion and control (11:2-6).

### GERMAN

After we consider the brilliance of the Germans in maneuvering the massive buildup on the Verdun front prior to attacking, there is little indication that this principle was used at any other time. Falkenhayn showed that he desired the ability to maneuver by his comments to the Kaiser prior to planning the operation (2:243-250). Regarding the specific battle, however, maneuver was ignored in favor of assaulting extremely strong points in the enemy defenses.

### FRENCH

The efforts of Pétain in securing the defensive posture around Verdun by developing his supply and communication lines, re-instituting the fortress system and coordinating and consolidating the artillery and infantry give good examples of maneuver. Yet, the

French, much like the Germans, otherwise ignored this principle throughout the battle. By trying to hold at all costs, they lost opportunities to fall back in order to draw the enemy into envelopments while saving manpower.

### TIMING AND TEMPO

Timing and tempo is the principle of executing military operations at a point in time and at a rate which optimizes the use of friendly forces and which inhibits or denies the effectiveness of enemy forces. The purpose is to dominate the action, to remain unpredictable, and to create uncertainty in the mind of the enemy. Commanders seek to influence the timing and tempo of military actions by seizing the initiative and operating beyond the enemy's ability to react effectively. Controlling the action may require a mix of surprise, security, mass, and maneuver to take advantage of emerging and fleeting opportunities. Consequently, attacks against an enemy must be executed at a time, frequency, and intensity that will do the most to achieve objectives. Timing and tempo require that commanders have an intelligence structure that can identify opportunities and a command, control, and communications network that can responsively direct combat power to take advantage of those opportunities (11:2-6).

### GERMAN

Although initiative lay with the Germans for the first four to five months, the overall idea behind timing and tempo was ignored. The basis of the German tactical plan "was a continuous series of limited advances...covered by an intense artillery bombardment ...By this means each objective would be taken and consolidated" before the enemy could counter-attack (4:116). In reality, the plan became rigid. Even when the opportunity for exploiting larger than expected gains occurred, there was no flexibility to

continue since reserves promised by Falkenhayn to the 5th Army were always released too late. Later in the campaign, he had valid reasons for not supplying reserves, since there were none. But early on, had he considered the possibility of a large measure of success, he could have made the four divisions which he held under his direct control (5:40) available to the 5th Army to exploit their early gains, thus allowing the attacking Germans a good measure of timing and tempo to continue the initiative.

### FRENCH

The French, in their offensive ways, tried many times to establish the timing and tempo and force the enemy to become the reactor and not the actor. However, for the most part, they futilely wasted their efforts trying to uphold the order to stand and hold. Here again, a change in tactics to perhaps flex back and draw the attacker in and away from his protective artillery and then pick a time more suitable for the offensive may have been more productive. During the October and December attacks, Pétain and Nivelle used their command, control and communications networks to effectively surprise the enemy with the creeping barrage tactics and to secure the initiative.

### UNITY OF COMMAND

Unity of command is the principle of vesting appropriate authority and responsibility in a single commander to effect unity of effort in carrying out an assigned task. Unity of command provides for the effective exercise of leadership and power of decision over assigned forces for the purpose of achieving a common objective.

Unity of command obtains unity of effort by the coordinated action of all forces toward a common goal. While coordination may be attained by cooperation, it is best achieved by giving a single commander full authority (11:2-6)

#### GERMAN

Although every German officer was trained to use his initiative in battle and, normally, was given great leeway in carrying out his specific mission, this principle was ignored by Falkenhayn. By promising, and then not delivering, reserves to the 5th Army, he maintained total control of the effectiveness of the offensive. Added to the lack of communication between Falkenhayn and the Crown Prince was General Von Knobelsdorf's, 5th Army Chief of Staff, propensity to persuade the Crown Prince to continue the objective and, failing that, to go around him to Falkenhayn and influence the direct orders to continue (10:199,207).

In the specific aspects of the battle, the German 5th Army displayed good unity of command. Since communication links were often lacking or, at best, delayed, the flexibility to carry out specific objectives was granted the individual corps commanders. Once again, however, the inflexibility of the operation gave the Crown Prince few options to pass on to his unit commanders.

#### FRENCH

The French, in a distorted way, used this principle well. While communication and resupply links were virtually wiped out in the initial artillery onslaught, each unit commander from top to



bottom understood his task - to hold at all cost and, if unable, to retake what is lost. Of course, the inflexibility of these orders gave the commanders few options.

Pétain, upon his arrival, established communication links, resupply lines, and command and control. The security provided by his organization allowed more freedom to the commanders at the front, yet, Joffre's orders, much like Falkenhayn's were inflexible. While Pétain argued that evacuating certain sectors and falling back to consolidate would allow an offensive much earlier, Joffre would not allow it and then took not only the responsibility and authority from the men who required it but also the flexibility they needed to save lives.

#### SIMPLICITY

To achieve a unity of effort toward a common goal, guidance must be quick, clear, and concise - it must have simplicity. Simplicity promotes understanding, reduces confusion, and permits ease of execution in the intense and uncertain environment of combat. Simplicity adds to the cohesion of a force by providing unambiguous guidance that fosters a clear understanding of expected actions. Simplicity is an important ingredient in achieving victory, and it must pervade all levels of a military operation. Extensive and meticulous preparation in peacetime enhances the simplicity of an operation during the confusion and friction of wartime. Command structures, strategies, plans, tactics, and procedures must all be clear, simple, and unencumbered to permit ease of execution. Commanders at all levels must strive to establish simplicity in these areas, and the peacetime exercise of forces must strive to meet that same goal (11:2-7).

#### GERMAN

Although a frontal assault on entrenched enemy positions at

first glance would seem simple, this principle was ignored by those in command, making the task much more complex. Falkenhayn's failure to insure understanding by his field commander, the Crown Prince, of the exact objective made the entire operation complex and, virtually, impossible.

Even if, in the beginning, Falkenhayn was intending a break through as some post-war writers believe (9:46:3:215-216), then his feeding of reserves to the 5th Army in dribblets, while promising the Crown Prince more were coming, still ignores simplicity. The operations carried out by the 5th Army would have had to be planned totally different if their orders had been to attack with only the manpower and material available. Here again, the disconnect regarding the true objective enters the equation.

#### FRENCH

The inflexible order to the French defenders to hold their ground was, while simplicity in action, very wasteful. However, this was the way the French army had prepared for the war and in that way were prepared to execute. Later, during the October and December attacks, the French commanders exhibited this principle. Their extensive and meticulous preparations for the creeping barrage tactics insured that in the friction of combat their troops would be able to carry out their tasks.

#### LOGISTICS

Logistics is the principle of sustaining both man and

machine in combat. Logistics is the principle of obtaining, moving, and maintaining warfighting potential. Success in warfare depends on getting sufficient men and machines in the right position at the right time. This requires a simple, secure, and flexible logistics system to be an integral part of an air operation. Regardless of the scope and nature of a military operation, **logistics is one principle that must always be given attention.** Logistics can limit the extent of an operation or permit the attainment of objectives. In sustained air warfare, logistics may require the constant attentions of an air commander. This can impose a competing and draining demand on the time and energy of a commander, particularly when that commander may be immersed in making critical operational decisions. This competing demand will also impose a heavy burden on a command, control, and communications network. The information, mechanics, and decisions required to get men, machines, and their required material where and when they are needed is extensive and demanding. During intense combat, these logistics decisions may even tend to saturate the time and attention of a commander. To reduce the **stresses imposed by potentially critical logistics decisions, commanders must establish a simple and secure logistic system in peacetime that can reduce the burden of constant attention in wartime (11:2-7).**

#### GERMAN

The German army actions at Verdun give us both good and bad examples of logistics. By this time in World War I, all the armies realized the age of the one great battle, a la Napoleon, was gone. The Germans came to the war knowing it, and, in preparation for the battle at Verdun, showed their prowess at massing men and machines and providing for their sustainability. During the first days of battle, however, they discovered that the terrain made movement of the artillery very difficult, and in some sectors impossible. In this case, their planning had not considered all the contingencies even though Verdun at this time of year was noted for its impassable areas.

Later, after depletion of its forces for other fronts, just getting water and rations to troops in the front trenches became difficult due to the heavy barrage from the French artillery. It was this problem of sustaining his troops, now in the defensive mode, that caused the Crown Prince and most of his commanders to begin to request permission to fall back to their original point of departure. However, Knobelsdorf was able to convince Falkenhayn to continue the appearance of an offensive (10:221-115). This continuance ignored the principle of logistics, led to a lessening of morale and cohesion and wasted the resources available.

#### FRENCH

The French high command ignored this principle when they failed to keep the Verdun salient prepared and allowed the area to be supplied only by the small rail and road system from Bar-le-Duc. Only after Pétain developed the system into the Sacred Way did the salient defenses become sustainable. His "Noria" system, cycling of whole divisions in and out of combat before they became decimated or worn out, conserved his troops will to fight. He was able to sustain both man and machine and developed this capability during some of the most intense fighting.

#### COHESION

Cohesion is the principle of establishing and maintaining the warfighting spirit and capability of a force to win. Cohesion is the cement that holds a unit together through the trials of combat and is critical to the fighting effectiveness of a force. Throughout military experience, cohesive forces have generally achieved victory,

while disjointed efforts have usually met defeat. Cohesion depends directly on the spirit a leader inspires in his people, the shared experiences of a force in training or combat, and the sustained operational capability of a force. Commanders build cohesion through effective leadership and generating a sense of common identity and shared purpose. Leaders maintain cohesion by communicating objectives clearly, demonstrating genuine concern for the morale and welfare of their people, and employing men and machines according to the dictates of sound military doctrine. Cohesion in a force is produced over time through effective leadership at all levels of command (11:2-8).

### GERMAN

The German army of 1916 was instilled with a warfighting spirit and attitude that they were capable of victory. The troops assembled at Verdun were looking forward to moving to the attack. They had spent the past year on the defensive in trenches. Now, they were finally going to take the battle to the enemy again (1:7). They were well trained and disciplined and their acceptance of their lot in life carried them through the first months of combat at Verdun.

The practice of leaving the units in the front line for extended periods, only adding replacements to their ranks as they were available, finally wore down their fighting spirit. The constant moving to the offensive, making short gains, then consolidating positions and finally attacking again made the troops wonder if their leaders really knew what they were doing. In this respect, the strategy employed at Verdun seems to have regarded cohesion as very unimportant and Falkenhayn appears to have had little regard for the lives of his troops.

## FRENCH

Being the only "republic" involved in the war to this point, the French army regard for its troops is interesting to examine. French officers, compared to those of either the German or English, appeared to worry little about their men once an action, combat or drill, was concluded and contact was limited usually to the actual battle. Where this was the case out of line, "they made up with leadership in battle that was composed of selfless example and fantastic gallantry" (5:63).

If this principle was ignored by the French officer corps, why would these troops fight so valiantly in defense of Verdun and during the constant counter-attacks that wasted so many lives? Primarily, because they were defending and fighting for their homeland. Also, the élan of the officer corps actually ran throughout the nation of France in this period.

Later, Pétain paid close attention to this principle and his attempts to stop the futile counter-attacks and implementation of the "Noria" system of replacements enhanced the soldiers outlook considerably. He was unable to halt completely the counter-attacks since Joffre desired they be made. When Nivelle replaced him and allowed Mangin to continue, during May and June, the attempts to retake Fort Douaumont, the French came very close to breaking the spirit of its soldiers (5:271).

Fortunately, for the French, the German offensive was winding down and the opening of battle on the Somme relieved the pressure

at Verdun. Therefore, Pétain and Nivelle had time to prepare the troops for their October and December offensive. The training and employment of their forces at this point was a good example of the necessary leadership to once again gain cohesion.

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## CHAPTER THREE

### DISCUSSION QUESTIONS

This chapter provides guided discussion questions regarding the Battle of Verdun, 1916, for use in ACSC seminars. The information provided here comes primarily from the previous chapters on battle description and principles of war analysis. These discussion questions will facilitate the dual purpose of a seminar on a specific battle. The dual purpose being, first, to promote an understanding of a bit of military history and, second, to facilitate the study of the principles of war.

#### DISCUSSION QUESTIONS

##### 1. Lead Off Question

What was the German objective in attacking the French in February 1916?

##### Discussion

The objective as formulated by General Falkenhayn, Chief of the German General Staff, was to knock France out of the war before she and England could develop their resources for a joint effort on the Western Front.

##### a. Follow-up Question

Why did Falkenhayn decide on the Verdun fortress area for this blow to the French forces?



## Discussion

His argument was based on tactical and strategic considerations. Tactically, the Verdun salient protruded out toward German lines in something of a semi-circle making it vulnerable to artillery barrages from both flanks as well as from head-on. Strategically, Falkenhayn appears to have felt that whether or not the Germans broke through at Verdun, they could still accomplish their overall objective. First, a breakthrough at Verdun would link up with the German salient to the south at St. Mihiel and this would cause the front from Argonne to Soissons to collapse or at least be critically endangered by his forces moving behind to encircle them. Secondly, ~~the Verdun fortress area~~ held considerable moral significance for the Germans as well as the French due to a long history of military engagements there. Even without a break through there, Falkenhayn reasoned that the French would throw enormous forces into the battle to hold Verdun thereby providing him the opportunity to attempt his infamous "bleed them white" theory.

### b. Follow-up Question

While Falkenhayn's objective appeared to be an either-or situation, what objective did the German 5th Army seem to have in mind?

## Discussion

The strategy of first engaging the French on the east bank then pushing on the west bank and then continuously assaulting their defenses would indicate the 5th Army objective was to take Verdun. However, they were forced to consolidate their positions each time due to a lack of reserves sufficient to continue the push. But, the

assaults continued once they were able to replenish their units.

c. Follow-up Question

With this disconnect over the objective, what were the problems the Germans faced with the principles of offensive, cohesion, and logistics?

Discussion

The idea to knock France out of the war and forestall the impending allied offensive appear to be well founded and addressed the reality of the situation in 1916. However, an attempt to draw the French forces into a mincing-machine poses a number of questions. First, how to keep the French pouring men and material in without somewhat of an offensive attitude. Also, keeping cohesion in the units used for the annihilation when they are told they are simply drawing the French to attack. Finally, an objective of bleeding the French army white would, by design, have to be something of a protracted affair and require considerable resources, not only men and machines but, the logistics resources to sustain them. Falkenhayn originally proposed the limited offensive at Verdun because, he argued, the Germans and their allies were already stretched thin. At this point, the only explanation appears that once begun, Verdun continued due to the indecisiveness of Falkenhayn. Perhaps he was indeed testing a theory of bleeding the French army white. However, by allowing his army to continue the assaults the theory began working on the Germans as well and exacerbated the disconnect in objectives of the high command and field command.

## 2. Lead Off Question

What were the French objectives at the beginning of battle at Verdun?

### Discussion

The French commanding general, Joffre, and his staff were caught off guard by the German attack. Even by the fourth or fifth day, they still believed this was only a small action preceeding the larger blow elsewhere on the front. As for establishing an objective, they really only reacted to the German blow exactly as Falkenhayn had predicted. The orders went out to the defenders to hold at all costs and to retake lost ground. Since the French and British were planning a major offensive on the Somme late in 1916, it is hard to understand why the French objective of standing on ill-prepared defenses evolved and eventually drew over three-fourths of the French army through the Verdun combat.

### a. Follow-up Question

Why were the defenses, especially the rings of forts, in such disrepair? What principle of war could we say was ignored by the French in this regard?

### Discussion

The French army entered World War I with a philosophy of the offensive and a belief that victory resulted solely from moral force. These ideas were still prevalent by 1916 and resulted in declassing the old forts and removing the artillery. The idea of digging-in on the front had been abhorrent to the French and they had launched a number of assaults on other sectors. They, along with the BEF, were planning to go on the offensive again in 1916 at the Somme.

To this end, they ignored the principle of security by allowing the defenses at Verdun to become so dissipated and provided the Germans an opportunity for a surprise attack.

b. Follow-up Question

General Henri Pétain was brought in to command the defenses in the Verdun sector four days after the Germans attacked. What were some of the principles of war he used and what effect did they have at Verdun?

Discussion

Pétain organized the artillery putting it under direct orders of the corps commanders to give better coordination (unity of command, security), developed the communication and resupply link (Sacred Way) to the outside world to insure sustainability (security, logistics), and established the "Noria" system of cycling full divisions in and out of combat building the cohesiveness of his units (cohesion). Since he was bound to carry out the inflexible strategy desired by Joffre, all these improvements, while holding the Verdun area, fed the mincing-machine and by sheer strength and time were able to turn the tide when the German forces were depleted for other fronts.

c. Follow-up Question

By standing and holding their ground, the French disregarded the principles of maneuver and timing and tempo. Could they have gained these without losing Verdun?

Discussion

The real question becomes, "did they really have to hold Verdun?" If in fact, the French were anxious for maneuver, why did they not present a flexible front to the on-rushing enemy. The idea being

to set-up thinly defended front lines that give way immediately, drawing the enemy infantry deeper into friendly turf and out of range of their close support field guns. Then, when the opponent is stretched far from his lines they could attack with full force from secondary, or even tertiary, consolidated positions. This tactic developed later in the war and was used most effectively allowing the much desired maneuver. By drawing back, they could also select the tempo of battle and would be fighting more at a time and place of their choosing.

### 3. Lead Off Question

World War I saw the use of technologically advanced weaponry which resulted from the industrial revolution. Did either the French or German leadership successfully apply any principles of war to these technological enhancements?

#### Discussion

The major technology improvements came in the form of mass-produced artillery, both field and heavy, and the machine gun. The massive bombardment of the enemy's front trenches was coupled with barrages throughout the rear areas. This made reinforcing and resupplying extremely difficult and succeeded in cutting communication links fairly effectively. The machine guns made the frontal assault extremely costly and provided defenders somewhat of an upper hand. The internal combustion engine enhanced sustainability and maneuverability significantly in that the truck and automobile made moving to and from the front rapid by previous standards. To a lesser extent, aircraft were significant in that observation of

enemy lines was extremely helpful to the artillery as well as commanders wanting to know of troop movements. However, the value of the aircraft was pretty much ignored for any other use at Verdun.

Initially, the German's use of rail and motor vehicles to move massive numbers of men and material into position was successful as was their attention to security in avoiding the French aircraft and completing the massing without alerting the French. They also applied mass to their artillery operations intending to allow the infantry to simply move in and occupy enemy positions. At first this appeared successful, however, their rather slow reaction probably detracted from any success in this area.

The French relied solely on the machine gun for security in the early going and, while they gave ground, the cost to the Germans was high. Later, Pétain applied the principle of logistics by his use of the Sacred Way, using trucks, autos and the rail system. Pétain also applied economy of force with his dispersal and coordination of the artillery. By closely husbanding his resources, he allowed Nivelle a good balance of mass and economy of force in employing the creeping barrage.

a. Follow-up Question

Was the German use of mass and economy of force properly balanced in light of the technology available?

Discussion

The plan called for massive artillery firepower and limited manpower to simply move in and occupy the enemy positions. The machine gun proved that balance between mass and economy of force was not there. Though the French troops were fairly well decimated, the

few survivors and their well placed machine guns were able to stall the initial German assault and, in fact, made every assault an expensive one. Therefore, the German tactic, while paying heed to technology on the one hand, ignored the significance of the technology of the machine gun and its defensive capability.

b. Follow-up Question

In light of the technology available, did the Germans apply the principle of simplicity to their tactics at anytime?

Discussion

The initial German assault used infiltration techniques, instead of mass waves, to feel out the French front lines. Backed up by sappers and flame thrower detachments, these units were effective since the French were looking for large, charging groups. The delay in bringing up the full infantry when French positions were discovered hampered the success of the simple maneuver and would indicate that enough thoroughness was not applied for the complete attacking force.

c. Follow-up Question

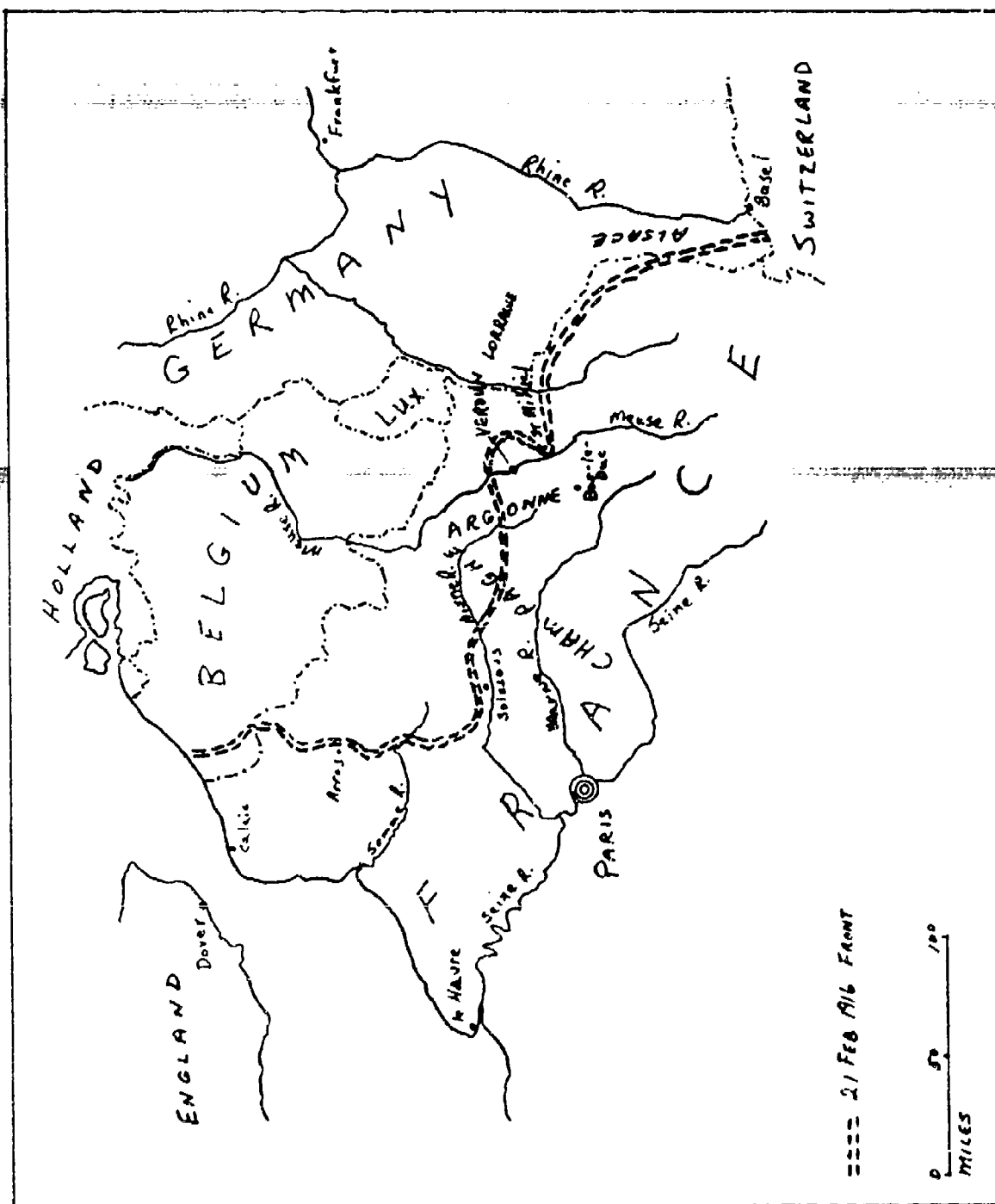
Did the French apply simplicity to their operations?

Discussion

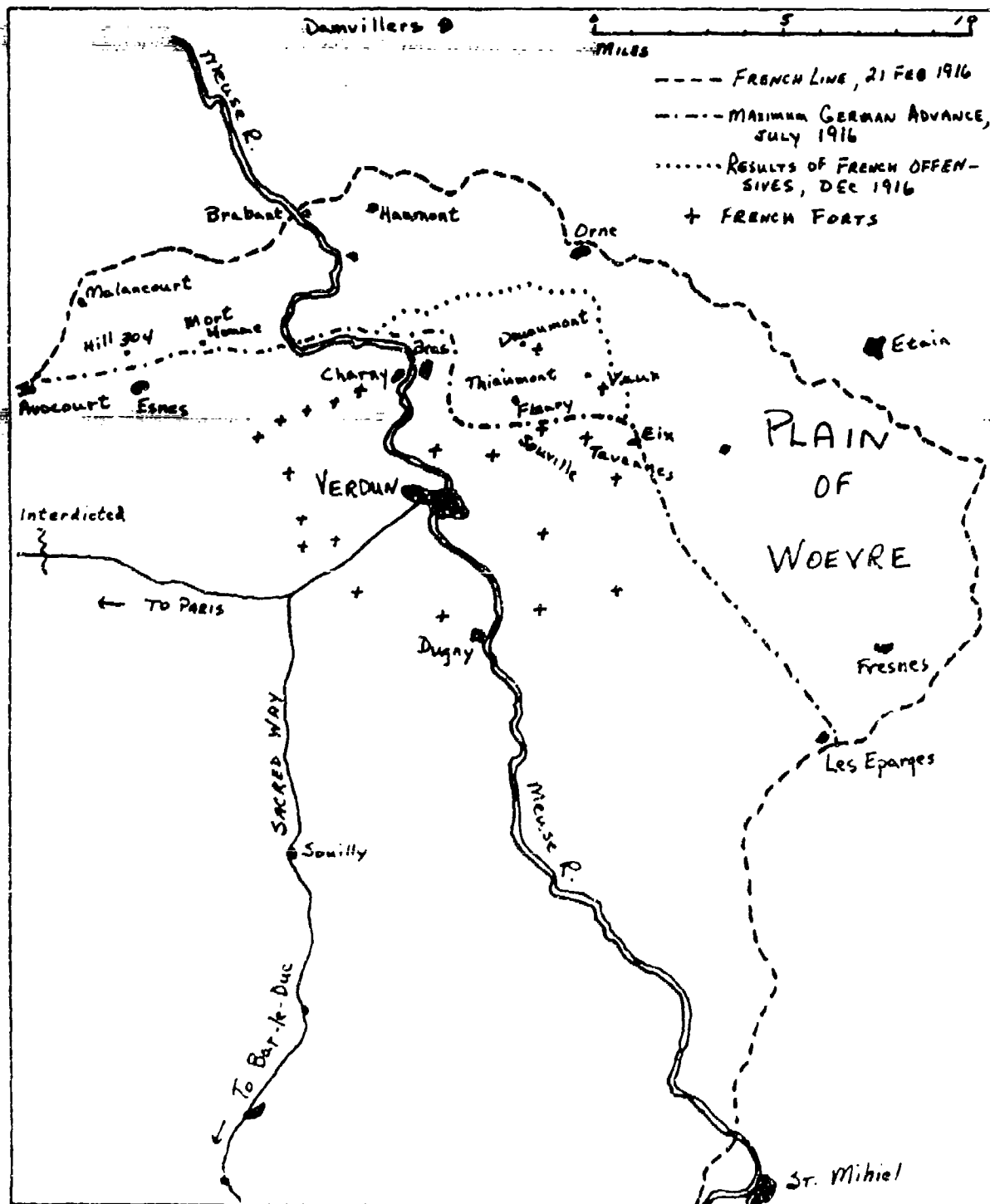
Again, Pétain's placing the artillery in direct line of the Corps commanders made operations simple in defending their positions. Later, the French used the technology available in designing their "creeping barrage" tactics to gain surprise while protecting the advancing infantry. Through the thorough training of their troops, Pétain and Rivelle simplified the operation. When employed, the troops were able to overcome the friction of battle since every man knew what was expected of him.

## APPENDIX





WESTERN FRONT, 21 FEB 1916 (5:28; 8:270-272)



BATTLE OF VERDUN, 21 FEB - 15 DEC 1916 (5:72-73; 7:444-445;  
8:276,284-285)

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